

(No Model.)

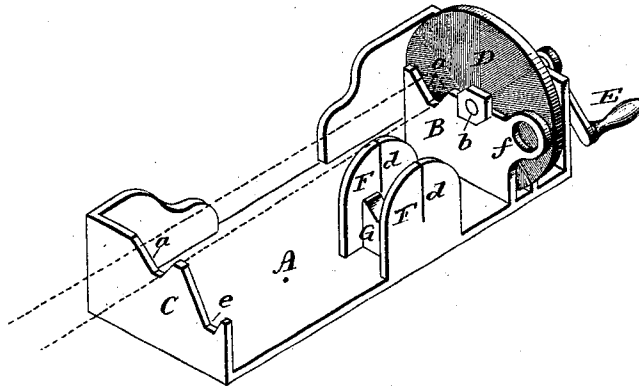
T. LOMAS.

MACHINE FOR FITTING BILLIARD CUE TIPS.

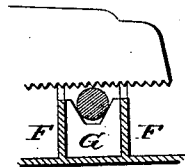
No. 282,741.

Patented Aug. 7, 1883.

*fig. 1*



*fig. 2*



Witnesses

*J. H. Shumway*  
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# UNITED STATES PATENT OFFICE.

THOMAS LOMAS, OF NEW HAVEN, CONNECTICUT.

## MACHINE FOR FITTING BILLIARD-CUE TIPS.

SPECIFICATION forming part of Letters Patent No. 282,741, dated August 7, 1883.

Application filed January 2, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS LOMAS, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machines for Fitting Billiard-Cue Tips; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view; Fig. 2, a transverse section showing the saw in the saw-guides.

This invention relates to a device for preparing the meeting surfaces of billiard-cues and their tips for cementing.

Usually the tip is sawed off as nearly even as it conveniently can be, and then smoothed with a file, the surface of the tip also filed, bringing them to something near a plain flat surface; then the cement is applied and the tip pressed upon the end of the cue, depending upon a forced pressure and surplus of cement to make a suitable connection between the tip and the cue. This work is usually done by those who are not thoroughly experienced in making nice joints; hence it is that irregularities in the surface must occur, and dependence must be had upon cement to make up the deficiency.

The object of my invention is the construction of a machine by which, however inexperienced the person may be, perfect-fitting surfaces must be produced on the cue and tip, so that simply a surfacing of cement will be all-sufficient; and the invention consists, principally, in the construction hereinafter described, and more particularly recited in the claims.

A represents the base, upon which are two rests, B and C, each fitted with a notch, *a*, to receive the cue, and in which notches the cue will lie, as indicated in broken lines.

D is a wheel, its surface radially serrated to produce cutting-edges something like a very coarse file. This wheel is arranged upon an axle, *b*, supported in suitable bearings, the axis being at one side of the notch *a* and parallel with the axis of the cue—that is to say, so as to bring the cutting surface or face of the wheel in a plane at right angles to the axis of the

cue. This wheel is fitted with a crank, E, or other suitable device by which the rotation may be imparted to the wheel. The cue is laid upon the rests, as seen in broken lines, the tip end against the cutter D, the cue held firmly by hand. The wheel or cutter being caused to rotate, the operator at the same time pressing the cue toward the wheel, the end will be dressed and in a plane at right angles to the axis and perfectly smooth and true.

It is frequently necessary to cut off a portion at the end of the tip, and that my machine may embody means for conveniently doing this, I construct a saw-guide consisting of two plates, F F, cast or fixed upon the bed of the machine, and standing substantially parallel to each other, with a vertical slot, *d*, in each to receive a saw, as seen in Fig. 2, the slot serving as a guide for the saw. Between the two plates is a notched rest, G, and at the rear a corresponding notch, *e*, in the rest C; the two notches receive the cue, and the saw is guided at right angles to the axis, so that the operator moving the saw back and forth through the axis must necessarily cut the end square.

The tips themselves require to be surfaced, and to do this in a true and workman-like manner I make in the rest B a hole, *f*, sufficiently large to receive and support the tip with its under face upon the cutter; then, pressing the tip against the revolving wheel, the surface will be dressed with the same accuracy as the end of the tip, so that the two will perfectly fit and be perfectly smooth, so that simply a surfacing of cement on the tip is all that is required to secure it to the tip in the strongest possible manner, and because of this regularity of surface and perfect fit between the tip and the cue there is much less liability of detaching the tip in playing than when they are prepared by the usual hand operation.

While I prefer the revolving cutter-wheel, it may be a reciprocating cutter arranged so that its surface moves in a plane at right angles to the axis, substantially as does the wheel, it only being necessary to my invention that there shall be a cutter having a cutting movement imparted to it and operating in a plane at right angles to the axis of the tip.

The machine may be placed upon a bench secured against the wall, or in any convenient position.

I claim—

1. In a machine for fitting billiard-cue tips, the combination of the notched rests B C, arranged to receive the cue, the rest B, provided  
5 with a seat, *f*, for the tip, and a cutter arranged to move and cut in a plane at right angles to the axis of the cue when placed upon the rests, substantially as described.
2. In a machine for fitting billiard-cue tips,  
10 the combination of the notched rests B C, ar-

ranged to receive the cue, a cutter arranged to move and cut in a plane at right angles to the axis of the cue when placed upon the rests, with the rests *e* G and saw-guides F F, substantially as described.

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Witnesses:

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